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*Navier Slip Condition for Viscous Fluids on a Rough Boundary*

In this talk, using homogenization methods and boundary layer techniques, I will derive asymptotically the effective Navier slip boundary condition, as a first-order corrector, to the no-slip condition on the interface between a fluid and a rough surface. The method used provides a formula to calculate the slip length for various geometries. I will also show some computations done, using FreeFem++, which agree with experimental data.